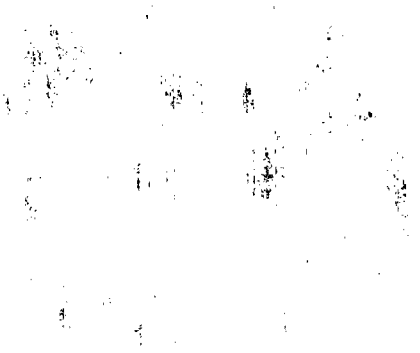
Monthly Oversight Report 40
ACS NPL Site
Griffith, Indiana
March 27, 2004 - April 30, 2004



Monthly Oversight Summary Report No. 40
ACS Superfund Site WA57, 46526.238

Reporting Period: Month of April (March 27, 2004 - April 30, 2004).
BVSPC O/S Dates: March 30 and April 1, 16, 22, 26 and 29, 2004.

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	6	Respondent's General Contractor
U.S. Environmental Protection Agency	1	Federal Regulatory Agency
Indiana Department of Environmental Management	1	State Regulatory Agency
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Eagle Services	2	Specialty Contractor
Independent Environmental Services	2	Specialty Contractor
Austgen	2	General Contractor
ISOTEC	4	Chemical Oxidation Application Contractor
PSA Environmental	2	Drilling Contractor

Construction Activities

Major Activities:

- Eagle Services jetted and vacuumed the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system wells in order to clean the well screens.
- Independent Environmental Services removed the pneumatic pumps from the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system dual phase extraction wells.
- Independent Environmental Services, Montgomery Watson Harza, and Austgen reinstalled the pneumatic pumps in the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system dual phase extraction wells.
- Montgomery Watson Harza began proving out wells in the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system.

- Montgomery Watson Harza operated the On-Site Containment Area Still Bottoms Pond Area and Off-Site Containment Area in-situ vapor extraction systems, processing vapors through the Global thermal oxidizer unit 2.
- Austgen relocated and chipped the logs from the Off-Site Containment Area cover for future placement in the wetlands.
- ISOTEC and PSA Environmental applied the chemical oxidation reagent to the south area near Colfax and Reder Roads in accordance with Montgomery Watson Harza's work plan.
- Montgomery Watson Harza held biweekly construction coordination meetings at the site on April 1 and 22, 2004.

Activities Performed:

Eagle Services cleaned the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) system well screens during the week of March 29, 2004. Montgomery Watson Harza (MWH) reported that it removed the well caps from the ONCA SBPA ISVE system wells located within the fenceline in order to vent the wells prior to Eagle Services commencing work. MWH also reported that its personnel wore respirators while removing the well caps; however, MWH did not perform air monitoring during these activities. MWH reported that it focused the toolbox health and safety meetings on respirator use and standing upwind from the wells. MWH also reported that it performed air monitoring within the breathing zone of the well field with a photoionization detector (PID) on March 29, 2004. MWH reported that PID readings in the breathing zone were 0 ppm, and that a peak of approximately 2 ppm was observed at the vent to Eagle Services' vacuum truck.

During jetting and vacuuming activities, Eagle Services' personnel wore full-face respirators and preformed air monitoring using a combustible gas indicator. MWH did not perform continuous or ambient air monitoring during Eagle Services' work on the ONCA SBPA ISVE system wells. MWH reported that it did not observe elevated readings in past activities on the wells and therefore did not believe that such monitoring was necessary. MWH also reported that the humidity in the air on March 30 and 31, 2004, caused the PID to work erratically. MWH performed air monitoring with the PID on April 1, 2004, at the request of Black & Veatch Special Projects Corp. (BVSPC). All readings in the breathing zone were 0 ppm. BVSPC expressed concern that MWH did not have a procedure for air monitoring during work on the ONCA SBPA ISVE system wells and that it was not performing air monitoring during the work activities. MWH reported that the water level gauging health and safety procedures were not appropriate for Eagle Services' work. MWH reported that it will evaluate existing protocols to establish a set procedure for work with the ONCA SBPA ISVE system wells.

Independent Environmental Services (IES) removed the pneumatic pumps from the ONCA SBPA ISVE system dual phase extraction (DPE) wells. IES personnel wore half-face respirators during the removal. IES disassembled the pumps on April 5, 2004, in order to inspect and repair the pumps if necessary. MWH reported that 13 of the 21 pneumatic pumps did not contain any product and functioned properly. IES, reinstalled the 13 functioning pumps in the ONCA SBPA ISVE system DPE wells on April 5, 2004. The remaining pumps were further cleaned, repaired and replaced on April 15, 2004, by MWH and Austgen, whose personnel wore respirators during the reinstallation work.

MWH began proving out the ONCA SBPA ISVE system wells by maintaining flow in the well for a minimum of 3 days. MWH reported that it was unable to establish flow from 17 wells. MWH reported that four of the 17 wells have high water levels and will require dewatering. MWH reported that it will attempt to confirm flow from these remaining wells by applying a higher vacuum on the wells.

Austgen relocated the logs from the Off-Site Containment Area (OFCA) cover to an area near the groundwater treatment plant (GWTP) on April 16, 2004. Austgen applied topsoil to the areas where the logs were stored on the OFCA. Austgen chipped the logs on April 28 and 29, 2004, using a tub grinder. Austgen chipped the logs in the wooded area northwest of the site trailer to minimize the potential for flying debris. MWH is staging the wood chips near monitoring well MW-10C. MWH reported that it needs written approval from CSX, the property owner, prior to placing the chips.

MWH held a health and safety kick-off meeting for the chemical oxidation (chem-ox) treatability study in the south area near Colfax and Reder Roads on April 26, 2004, with PSA Environmental, the drilling contractor, and ISOTEC, the chem-ox contractor. PSA and ISOTEC applied a modified Fenton's reagent to the smear zone in the south area from April 26 to 30, 2004. MWH reported that a total of 40 injection points were completed. BVSPC observed the injection of the reagent. During field activities, MWH performed air monitoring of the breathing zone with a PID. MWH reported that elevated PID readings were not observed. ISOTEC applied the reagent in a two-step process, alternating the application of catalyst with the application of hydrogen peroxide. In order to minimize surfacing of the reagent, PSA Environmental placed granular bentonite in the geoprobe hole to form a seal. BVSPC requested that an exclusion zone be established around the chemical supply area during injection activities to control ingress and egress and that the hydrogen peroxide be stored as far as possible from Colfax Road. MWH set up orange cones and signs along Colfax Road as an added safety precaution.

MWH operated the OFCA ISVE system throughout the reporting period, drawing vapors from 17 wells and processing through the Global thermal oxidizer unit 2. MWH operated the GWTP at a lower rate of 20 gpm in the beginning of the reporting period because the ONCA SBPA ISVE system DPE wells were not online. Once the pneumatic pumps were reinstalled in the ONCA SBPA ISVE system DPE wells, MWH operated that GWTP at approximately 30 gpm. Approximately 1,500 gallons of liquid generated during Eagle Services' work were processed through the GWTP. MWH reported that a tank in the GWTP was overfilling on April 10, 2004. MWH shut down the GWTP and backwashed the carbon filters on April 11, 2004. MWH resumed operating the GWTP on April 11, 2004, without incident.

MWH held two biweekly construction coordination meetings at the site on April 1 and 22, 2004.

Attached are BVSPC weekly reports No. 161 through 165, correspondence, log book notes, and photographs of the daily activities. BVSPC's crew conducted oversight of the major field activities on March 30, and April 1, 16, 22, 26 and 29, 2004. BVSPC's crew attended two construction coordination meetings at the site on April 1 and 22, 2004.

Topics of Concern:

- Air monitoring activities during Eagle Services work were not clearly established with respect to volatile organic compounds.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.

Upcoming Activities:

- MWH to line the Durr thermal oxidizer unit 1 scrubber to prevent corrosion.
- MWH to expand the OFCA ISVE system.
- MWH to continue proving out the ONCA SBPA ISVE system wells.
- MWH to continue operating the OFCA and the ONCA SBPA ISVE systems.
- MWH to place the wood chips in the wetland paths to the monitoring wells.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.

Signature: Leigh Peters Date: May 10, 2004

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Weekly Oversight Summary Report No. 161
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of March 29, 2004.
BVSPC O/S Dates: March 30 and April 1, 2004 (Ms. Peters).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	3	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Eagle Services	2	Specialty Contractor
Independent Environmental Services	2	Specialty Contractor

Construction Activities

Major Activities:

- Eagle Services jetted and vacuumed the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system wells for clearing the well screens.
- Independent Environmental Services removed the pneumatic pumps from the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system dual phase extraction wells.
- Montgomery Watson Harza continued to operate the Off-Site Containment Area in-situ soil vapor extraction system, processing vapors through the Global thermal oxidizer unit 2.
- Montgomery Watson Harza held the bi weekly construction coordination meeting at the site on April 1, 2004.

Activities Performed:

Eagle Services mobilized to the site on March 29, 2004, to clean the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) system well screens. Eagle Services jetted the well screens using a spray nozzle and city water. Eagle Services then vacuumed the standing liquids from the wells. Montgomery Watson Harza reported that it removed the well caps from the ONCA SBPA ISVE system wells located within the fenceline in order to vent the wells prior to Eagle Services commencing work. MWH also reported that its personnel wore respirators while removing the wells caps; however, MWH did not perform air monitoring during these activities. MWH reported that it focused the toolbox health and safety meetings on respirator use and standing upwind from the wells. MWH also reported that it performed air monitoring within the breathing zone of the well field with a photoionization

detector on March 29, 2004. MWH reported that the readings on the photoionization detector (PID) in the breathing zone were 0 ppm, and that a peak of approximately 2 ppm was observed at the vent to Eagle Services' vacuum truck.

During jetting and vacuuming activities, Eagle Services personnel wore full-face respirators and performed air monitoring using a combustible gas indicator. MWH did not perform continuous or ambient air monitoring during Eagle Services' work on the ONCA SBPA ISVE system wells. MWH reported that it did not observe elevated readings in past activities on the wells and therefore did not believe that such monitoring was necessary. MWH also reported that the humidity in the air on March 30 and 31, 2004, caused the PID to work erratically. MWH performed air monitoring with the PID on April 1, 2004, at the request of Black & Veatch Special Projects Corp. (BVSPC). All readings in the breathing zone were 0 ppm. BVSPC expressed concern that MWH did not have a procedure for air monitoring during work on the ONCA SBPA ISVE system wells and that it was not performing air monitoring during the work activities. MWH reported that the water level gauging health and safety procedures were not appropriate for Eagle Services' work. MWH reported that it will evaluate existing protocols to establish a set procedure for work with the ONCA SBPA ISVE system wells.

Independent Environmental Services (IES) was onsite on March 30, 2004, to remove the pneumatic pumps from the ONCA SBPA ISVE system dual phase extraction (DPE) wells in order for Eagle Services to vacuum and jet the wells. IES personnel wore half-face respirators during the pump removal. IES wrapped the pumps in plastic and stored them in the groundwater treatment plant (GWTP). MWH reported that it will inspect and test the pumps to ensure that they are working properly prior to reinstalling them into the ONCA SBPA ISVE system DPE wells. IES is scheduled to test and reinstall the pumps on April 5, 2004.

MWH operated the GWTP at a lower rate of 20 gpm because the ONCA SBPA ISVE system DPE wells were not operating. MWH processed the water from Eagle Services' work in the GWTP. MWH reported that Eagle generated approximately 1,500 gallons of liquid. MWH reported that it continued to operate the Off-Site Containment Area ISVE system, processing vapors through the Global thermal oxidizer unit 2. MWH reported that it continues to investigate heat exchanger options for the Durr thermal oxidizer unit 1.

BVSPC attended the biweekly construction coordination meeting held at the site on April 1, 2004.

Topics of Concern:

- Air monitoring activities during Eagle Services work were not clearly established with respect to volatile organic compounds.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.

Upcoming Activities:

- MWH to line the Durr thermal oxidizer unit 1 scrubber to prevent corrosion.
- MWH to establish flow and test the ONCA SBPA ISVE system wells.
- IES to clean and reinstall the pumps in the ONCA SBPA ISVE system dual phase extraction wells.
- MWH to continue operating the OFCA ISVE system and resume operating the ONCA SBPA ISVE system.
- MWH to chip the logs on the OFCA cover for placement in the wetland paths to monitoring wells.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.

Signature: Leigh Peters Date: April 9, 2004

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WEEKLY CONSTRUCTION MEETING MINUTES FOR APRIL 1, 2004 MEETING AMERICAN CHEMICAL SERVICE, NPL SITE GRIFFITH, INDIANA

MEETING DATE: Thursday, April 1, 2004

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS Site – Site Trailer

ATTENDEES:
Kevin Adler – U.S. EPA
Leigh Peters – BVSPC
Pete Vagt – MWH (by phone)
Todd Lewis – MWH
Aaron Potts- Environ
Lee Orosz - MWH
Tom Tinics - MWH
Jon Pohl – MWH
Chad Smith – MWH
Rudolf Stein - MWH
Amy Clore - MWH

TOPICS:

Health and Safety Summary

There have been no Health and Safety issues at the Site since the last meeting on March 25th. Jetting and vacuuming of the Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) and dual phase extraction (DPE) wells and air sparge points began on March 29th. Tailgate Health and Safety meetings have taken place daily to cover all potential health and safety (H&S) issues that are associated with the work. There have been no volatile organic compounds (VOCs) detected with the flame ionization detector/photoionization detector (FID/PID) in the breathing zone during routine monitoring. FID/PID readings of 40 to 50 parts per million (ppm) were detected while monitoring the wells. All workers for Eagle Services are wearing the appropriate personal protective equipment (PPE) including respirators.

A question was raised during the meeting as to why the air monitoring protocol for the well gauging was not being followed for the well cleaning activities. MWH replied with the following information.

- MWH believes that the well gauging protocol is more stringent than necessary for this particular work

- In addition, FID/PID readings have not detected VOCs in the worker's breathing zone.

MWH will review the protocols for pipe installation and well installation and determine if these are more suited for the work. In the interim, MWH and Eagle Services will continue to perform air monitoring with the FID/PID and a multigas meter.

The current protocol for ISVE well gauging has been used for nine months. It may be more stringent than necessary for insuring the worker safety and it calls for steps to be taken that increases exposure time by the fieldwork. In the weeks to come the procedure will be revised to determine if there are more efficient methods to collect the data, while maintaining the high level of worker protection during well gauging.

Other activities conducted since the last meeting included operation of the GWTP, operation of the Off-Site Area ISVE system and the jetting and vacuuming of the SBPA ISVE system.

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating at approximately 20 gallons per minute (gpm). The total flow to the system was lowered since the pumps were removed during the maintenance activities from the SBPA DPE wells. The pumps were removed by Independent Environmental Services (IES) in order to allow the jetting and vacuuming equipment access to the DPE wells. The pumps are being stored on plastic sheeting inside the GWTP building. These pumps have also been cleaned and they will be placed back in the wells during the week of April 5th. There have been no operational issues with the GWTP since the last meeting on March 25th.

Off-Site Area/SBPA ISVE Systems

Thermal Oxidizer/Scrubber Unit 2 (Therm Ox 2) is currently treating vapors from the Off-Site ISVE system and the aeration tank, T-102. There have been no issues with Therm Ox 2 since the last meeting on March 25th.

Thermal Oxidizer/Scrubber Unit 1 (Therm Ox 1) is still shutdown for repairs. The replacement of the heat exchanger has been discussed with several vendors. An "off-skid" replacement has been recommended since it will not need to be custom fitted to the existing system. This "off-skid" heat exchange unit would not attach directly to the therm ox unit but would be placed next to it with ducts connecting the two units. MWH is currently comparing the various options for the unit.

The jetting and vacuuming of the SBPA ISVE and DPE wells and the air sparge points began on March 29th and should be completed by April 2nd. Water generated during well cleaning activities is being placed in the oil phase-separator tank in the GWTP and then processed by the plant. The sludge generated by the well cleaning activities is dried in the GWTP filter press and placed in the soil roll-off box.

Chemical Oxidation Baseline Study

A summary of preliminary results for the chemical oxidation baseline study was submitted to the Agencies on April 1st. These results are still being validated. It is anticipated that the data from Isotech's chemical optimization study will be received by MWH the week of April 5th. Once MWH has reviewed this data, finalization of the work plan will be completed with the Agencies. MWH anticipates beginning the chemical application work to begin the last week of April.

Looking Ahead Schedule

April 1, 2004 through April 22, 2004	• Reinstall pumps into dual phase wells • Evaluate flow of SBPA ISVE system to monitor for improvements • Evaluate and revise ISVE well gauging methods • GWTP/BWES/PGCS operation and routine maintenance • Off-Site ISVE system and SBPA ISVE system operation • Begin cutting the tree stumps for the wetlands access paths and moving the cut material to the On-Site area depending on the weather • Receive bench scale Chem-Ox data from lab and finalize plans for treatability study
Health and Safety Items to Monitor	• Safety issues associated with the start up of SBPA ISVE system. • Chainsaw work associated with the wetlands access paths

Next Construction Meeting – Thursday, April 22, 2004, 10 AM

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Weekly Oversight Summary Report No. 162
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of April 5, 2004.
BVSPC O/S Dates: Cancelled because of limited activities.

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	4	Respondent's General Contractor
Independent Environmental Services	2	Specialty Contractor

Construction Activities

Major Activities:

- Independent Environmental Services tested and reinstalled pumps for the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system dual phase extraction wells.
- Montgomery Watson Harza began operating the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system, confirming vapor flow from some of the system wells.
- Montgomery Watson Harza continued to operate the Off-Site Containment Area in-situ soil vapor extraction system, processing vapors through the Global thermal oxidizer unit 2.

Activities Performed:

Independent Environmental Services (IES) was onsite on April 5, 2004, to reinstall the pneumatic pumps for the ONCA SBPA ISVE system dual phase extraction (DPE) wells. Prior to installation, IES cleaned and tested the pumps. Montgomery Watson Harza (MWH) reported that 13 of the pneumatic pumps did not contain any product and functioned properly. MWH reported that the remaining pumps were fouled with an oily material and will be further cleaned and inspected next week. IES wore half-face respirators during reinstallation of the DPE pumps. MWH reported that it kept the well caps off the wells over the weekend after Eagle Services had completed its work last week in order to minimize the buildup of vapors in the wells. MWH reported that elevated photoionization detector readings were not observed during the activities.

MWH measured the water levels in the ONCA SBPA ISVE system wells on April 6, 2004. MWH began startup of the ONCA SBPA ISVE system on April 7, 2004, placing a vacuum on each ISVE well. MWH reported that it was unable to achieve flow from 5 vapor wells. MWH proceeded to operate the system, pulling vapors from a select group of 19 wells and processing the vapors through the Global thermal oxidizer unit 2.

MWH operated the GWTP at 30 gpm. MWH reported that it was pumping at an increased rate because some of the ONCA SBPA ISVE system DPE wells were placed online. MWH reported that it continued to operate the Off-Site Containment Area ISVE system, processing vapors through the Global thermal oxidizer unit 2.

Topics of Concern:

- Air monitoring activities during Eagle Services work were not clearly established with respect to volatile organic compounds.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.

Upcoming Activities:

- MWH to line the Durr thermal oxidizer unit 1 scrubber to prevent corrosion.
- MWH to establish flow and test the ONCA SBPA ISVE system wells.
- IES to clean and reinstall the remaining pumps for the ONCA SBPA ISVE system dual phase extraction wells.
- MWH to continue operating the OFCA and the ONCA SBPA ISVE systems.
- MWH to chip the logs on the OFCA cover for placement in the wetland paths to monitoring wells.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.

Signature: Leigh Peters Date: April 16, 2004

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Weekly Oversight Summary Report No. 163
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of April 12, 2004.
BVSPC O/S Dates: April 16, 2004 (Ms. Peters).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	2	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	Oversight Contractor
Austgen	2	General Contractor

Construction Activities

Major Activities:

- Montgomery Watson Harza and Austgen cleaned and reinstalled the remaining pneumatic pumps into the On-Site Containment Area Still Bottoms Pond Area in-situ vapor extraction system dual phase extraction wells.
- Austgen relocated the logs from the Off-Site Containment Area cover to an area southwest of the GWTP.
- Montgomery Watson Harza continued to operate the Off-Site Containment Area and On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction systems, processing vapors through the Global thermal oxidizer unit 2.

Activities Performed:

Montgomery Watson Harza (MWH) and Austgen cleaned the remaining eight On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) system dual phase extraction (DPE) well pumps. Independent Environmental Services (IES) had reinstalled 13 DPE well pumps during the previous week. MWH reported that it also tested the pumps and was unable to operate three of them. MWH reported that it will further inspect and repair the remaining three pumps.

MWH and Austgen installed the ONCA SBPA ISVE system DPE pumps on April 15, 2004. MWH reported that it and Austgen personnel wore respirators during the reinstallation work. MWH opened the caps on Thursday morning, allowing the wells to vent for approximately 4 hours prior to installing the pumps. MWH reported that it performed air monitoring during the cap removal with a photoionization detector (PID). MWH reported that the PID readings were significantly lower at the well riser than observed during previous weeks. MWH also reported that it did not observe elevated readings in the breathing zone.

Austgen relocated the logs from the Off-Site Containment Area (OFCA) cover on April 16, 2004. Austgen moved the logs to a location immediately southwest of the groundwater treatment plant (GWTP) for temporary storage. Black & Veatch Special Projects Corp. (BVPSC) did not observe ruts in the OFCA cover as a result of Austgen relocating the logs. MWH reported that Austgen will bring in topsoil and reseed the areas on the OFCA cover where the logs were located. MWH also reported that Austgen will be onsite on April 20, 2004, to chip the logs to construct paths in the wetland area to the monitoring wells.

MWH reported that a tank was overfilling in the GWTP on April 10, 2004. MWH shut down the GWTP and backwashed the carbon filters on April 11, 2004. MWH resumed operating the GWTP at 30 gpm on April 11, 2004. MWH continued to operate the ONCA SBPA ISVE system, pulling vapors from 19 wells and processing vapors through the Global thermal oxidizer unit 2. MWH continued to operate the OFCA ISVE system, processing vapors through the Global thermal oxidizer unit 2.

Topics of Concern:

- Air monitoring activities during Eagle Services work were not clearly established with respect to volatile organic compounds.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.

Upcoming Activities:

- MWH to line the Durr thermal oxidizer unit 1 scrubber to prevent corrosion.
- MWH to continue operating the OFCA and the ONCA SBPA ISVE systems.
- Austgen to chip the logs on the OFCA cover for placement in the wetland paths to monitoring wells.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.

Signature: Leigh Peters Date: April 23, 2004

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Weekly Oversight Summary Report No. 164
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of April 19, 2004.
BVSPC O/S Dates: April 22, 2004 (Mr. Campbell).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	3	Respondent's General Contractor
U.S. Environmental Protection Agency	1	Federal Regulatory Agency
Indiana Department of Environmental Management	1	State Regulatory Agency
Black & Veatch Special Projects Corp.	1	Oversight Contractor

Construction Activities

Major Activities:

- Montgomery Watson Harza continued proving out the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system wells.
- Montgomery Watson Harza continued operating the Off-Site Containment Area and On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction systems, processing vapors through the Global thermal oxidizer unit 2.
- Montgomery Watson Harza held the biweekly construction coordination meeting at the site on April 22, 2004.

Activities Performed:

Montgomery Watson Harza (MWH) continued to prove out the vapor wells in the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) system by maintaining flow in the well for a minimum of 3 days. MWH reported that it is unable to establish flow at 17 of the ONCA SBPA ISVE system wells. MWH also reported that four of the 17 wells have high water levels and require further dewatering. MWH reported that it will attempt to confirm flow from the remaining wells by applying a higher vacuum. MWH continued to operate the ONCA SBPA ISVE system, processing vapors through the Global thermal oxidizer unit 2.

MWH reported that it is currently preparing a Scope of Work for the expansion of the Off-Site Containment Area (OFCA) ISVE system. MWH continued to operate the OFCA ISVE system, processing vapors through the Global thermal oxidizer unit 2.

MWH continued to operate the groundwater treatment plant at 30 gpm. MWH reported that it continues to evaluate options for replacing the Durr thermal oxidizer unit 1 heat exchanger.

MWH reported that the chemical oxidation (chem-ox) treatability study will start on Monday, April 26, 2004. MWH reported that the health and safety kick-off meeting will be held prior to starting work on April 26, 2004. Black & Veatch Special Projects Corp. (BVSPC) expressed a concern that the air monitoring protocol presented in ISOTEC's, the chem-ox application contractor, plan was inconsistent. MWH contacted ISOTEC and clarified the air monitoring procedures, reporting that only MWH will be performing air monitoring with a photoionization detector.

BVSPC attended the biweekly construction coordination meeting held at the site on April 22, 2004.

Topics of Concern:

- Air monitoring activities during Eagle Services work were not clearly established with respect to volatile organic compounds.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.

Upcoming Activities:

- MWH to conduct the chem-ox treatability study starting April 26, 2004.
- MWH to line the Durr thermal oxidizer unit 1 scrubber to prevent corrosion.
- MWH to expand the OFCA ISVE system.
- MWH to continue to prove out the ONCA SBPA ISVE system wells.
- MWH to continue operating the OFCA and the ONCA SBPA ISVE systems.
- Austgen to chip the logs from the OFCA cover for placement in the wetland paths to monitoring wells.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.

Signature: Leigh Peters Date: May 4, 2004

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WEEKLY CONSTRUCTION MEETING MINUTES
FOR APRIL 22, 2004 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA

MEETING DATE: Thursday, April 22, 2004

MEETING TIME: 2:00 PM

MEETING LOCATION: ACS Site – Site Trailer

ATTENDEES:
Kevin Adler – U.S. EPA
Prabhakar Kasarabada – IDEM
Larry Campbell – BVSPC
Pete Vagt – MWH
Todd Lewis – MWH
Chris Daly – MWH
Tom Tinics – MWH
Jon Pohl – MWH
Chad Smith – MWH
Matthew Mesarch – MWH
Amy Clore – MWH

TOPICS:

Health and Safety Summary

There have been no Health and Safety issues at the Site since the last meeting on April 1st. Independent Environmental Contractors (IEC) was onsite performing maintenance on and reinstalling the Dual Phase Extraction (DPE) well pumps for the Still Bottoms Pond Area (SBPA) In-Situ Soil Vapor Extraction (ISVE) system. Austgen Equipment has also been onsite assisting in cleaning and maintaining the DPE well pumps. The proper PPE was worn by the personnel working with the pumps and air monitoring indicated no elevated PID readings during reinstallation of the pumps. Austgen Equipment personnel also moved the tree stumps from the Off-Site Area to the west side of the Groundwater Treatment Plant (GWTP) in preparation for dressing the wetland access paths.

Other activities conducted since the last meeting included operation of the GWTP and operation of the Off-Site Area ISVE.

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating at approximately 30 gallons per minute (gpm). The SBPA DPE well pumps that were removed for the jetting and vacuuming activities have

been cleaned and reinstalled. All the DPE wells are operating except for DPE wells 61 and 65 where corroded pitless adapters were found. These adaptors will be replaced. The GWTP was shutdown on April 10th due plugging in the lead carbon vessel. The vessel was backwashed and the GWTP was brought back online on April 11th.

Off-Site Area/SBPA ISVE Systems

Thermal Oxidizer/Scrubber Unit 2 (Therm Ox 2) is currently treating vapors from the Off-Site ISVE system, SBPA ISVE system, and aeration tank T-102. There have been no problems with the operation of Therm Ox 2 since the last meeting on April 1st.

Thermal Oxidizer/Scrubber Unit 1 (Therm Ox 1) is still shutdown for repairs. MWH is currently in the process of obtaining a quote for repairing or replacing the heat exchanger for this unit. Once the quote has been received, MWH will determine the next course of action.

The Off-Site Area ISVE system is operating in the same configuration of 17 ISVE wells as the previous month. A scope of work for the expansion of the Off-Site Area ISVE system, including a new blower and knockout tank, will be submitted to the Agencies during the week of April 26th. MWH is currently proving out the flow in the SBPA ISVE system wells. There are 17 ISVE wells in the SBPA that have not produced flow, 13 of which are dry. MWH is looking into increasing the vacuum applied to these wells to aid in pulling vapors from the 13 dry wells. Individual dewatering of the remaining four wells where water is present will begin on April 23rd. An increased vacuum will then be applied to these wells after the localized dewatering is completed.

Wetlands Path

On April 16th, Austgen Equipment removed the stumps and material from the Off-Site Area to the west side of the GWTP. This material will be chipped in order to use it for the proposed wetlands access paths. MWH is currently waiting for a representative of the property owner, CSX Railroad, to sign the permit application. When the signature is acquired, the completed permit request form will be forwarded to the Indiana Department of Natural Resources (IDNR).

Chemical Oxidation Application

The chemical oxidation (Chem-Ox) field application is scheduled to begin on April 26th. It is estimated that the application will take one week with Chem-Ox being applied at approximately 40 locations. As detailed in the ISOTEC (the Chem-Ox contractor) health and safety plan, the personal protection equipment (PPE) will consist of Tyvek suits, safety boots, chemically resistant gloves, hard hats, safety glasses, and face shields. Respirator protection will not be required. ISOTEC's crew will have dust masks in the event that the stabilizer compound, which is in a granular form, becomes a nuisance to the crew due to windy conditions. MWH will perform regular air monitoring with a photoionization detector (PID) in the work area. The main health and safety concern will be working along Colfax Ave. The same precautions used during the baseline sampling

event in this area, such as cones and safety vests, taking during the baseline sampling event will be taken during this portion of work.

A inconsistency in two sections of the ISOTEC's health and safety plan regarding air monitoring was noted. MWH will contact ISOTEC to address the inconsistency prior to commencing work. A clarification of the inconsistency will also be submitted to the Agencies prior to commencing work.

Look Ahead Schedule

April 23, 2004 through May 6, 2004	• Chem -Ox injection field work • Austgen will begin chipping and staging the tree stumps from the Off-Site Area • Off-Site ISVE system and SBPA ISVE system operation • GWTP/BWES/PGCS operation and routine maintenance
Health and Safety Items to Monitor	• Safety issues associated with chem ox work • Safety issues associated with wood chipping for the wetland access path

Next Construction Meeting – Thursday, May 6, 2004, 10 AM

ALC/JDP/RAA/PJV
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Weekly Oversight Summary Report No. 165
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of April 26, 2004.
BVSPC O/S Dates: April 26 and 29, 2004 (Ms. Peters and Mr. Campbell).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	3	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	Oversight Contractor
ISOTEC	4	Chemical Oxidation Application Contractor
PSA Environmental	2	Drilling Contractor
Austgen	2	General Contractor

Construction Activities

Major Activities:

- Montgomery Watson Harza held a health and safety kick-off meeting for the chemical oxidation treatability study work on April 26, 2004.
- ISOTEC and PSA applied the chemical oxidation reagent to the south area in accordance with Montgomery Watson Harza's work plan.
- Austgen chipped the logs from the Off-Site Containment Area cover for use in the wetland paths.
- Montgomery Watson Harza continued proving out the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system wells.
- Montgomery Watson Harza continued operating the Off-Site Containment Area and On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction systems, processing vapors through the Global thermal oxidizer unit 2.

Activities Performed:

Montgomery Watson Harza (MWH) held a health and safety kick-off meeting for the chemical oxidation (chem-ox) treatability study in the south area near Colfax and Reder Roads for PSA Environmental, the drilling contractor, and ISOTEC, the chem-ox contractor, on April 26, 2004. PSA and ISOTEC applied a modified Fenton's reagent to the smear zone in the south area from April 26 to 30, 2004. MWH reported that a total of 40 injection points were completed. Black & Veatch Special Projects Corp. (BVSPC) observed the injection of the reagent. During field activities, MWH performed air monitoring of the breathing zone with a photoionization detector (PID). MWH reported that elevated PID readings were not observed. ISOTEC applied the reagent in a two-step process, alternating the application of

catalyst with the application of hydrogen peroxide. In order to minimize surfacing of the reagent, PSA Environmental placed granular bentonite in the geoprobe hole to form a seal. BVSPC requested that an exclusion zone be established around the chemical supply area during injection activities to control ingress and egress and that the hydrogen peroxide be stored as far as possible from Colfax Road. MWH set up orange cones and signs along Colfax Road as an added safety precaution.

Austgen chipped the logs from the Off-Site Containment Area (OFCA) cover on April 28 and 29, 2004. Austgen used a tub grinder and excavator to complete the work. Austgen chipped the logs in the wooded area near the site trailer to minimize the potential for flying debris. MWH is staging the wood chips near monitoring well MW-10C prior to placement. MWH reported that it needs written approval from CSX, the property owner, prior to placing the chips in the wetland paths.

MWH continued to prove out the vapor wells in the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) system. MWH continued to operate the OFCA and ONCA SBPA ISVE systems, processing vapors through the Global thermal oxidizer unit 2. MWH operated the groundwater treatment plant at 30 gpm.

Topics of Concern:

- Air monitoring activities during Eagle Services work were not clearly established with respect to volatile organic compounds.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.

Upcoming Activities:

- MWH to line the Durr thermal oxidizer unit 1 scrubber to prevent corrosion.
- MWH to expand the OFCA ISVE system.
- MWH to continue proving out the ONCA SBPA ISVE system wells.
- MWH to continue operating the OFCA and the ONCA SBPA ISVE systems.
- MWH to place the wood chips in the wetland paths to the monitoring wells.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.

Signature: Leigh Peters Date: May 4, 2004

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(80)

3/25/04

instructed operator to turn off phone or not answer phone during lift.

GWTP: routine maintenance, op at 25 gpm.

Thermox 2: Running on ONCA and ONCA ISVE vapors and T-102 vapors. Down yesterday (along w/ GWTP) for 4 hrs for maintenance.

Thermox 1: Global provided replacement cost. MWH getting second estimate from Vidimos. Vidimos out on 3/22 and took unit back to its shop. Should have estimate this week.

ONCA ISVE: IES blew out water from lines. Eagle to be on site next week to clean well screens in wells with no flow.

GW Sampling: Completed 3/23 - Results in 2-3 weeks. MWH observed high turbidity at several wells and may propose redevelopment. MWH did redevelop some.

Leak Hazard: Eagle Serviced - monitoring and coordinate with ACS

Antigen - hrs w/ chainsaws, choppers and safety guards

1020 Mtg Concludes - Next Mtg 4/1/04 @ 1000

1030-1035 Update & Completion Site activities.

1045. Left Site for day

(81)

3/30/04

0810 Arrive Onsite; Sunny, 50°F; SW wind

Personnel Present

Lee Orosz	MWH
Mike Petrich	IES
Tom Timics	MWH
Terrance Jones	IES
Jose Guerra	Eagle
TJ Kladosz	Eagle
Leigh Peters	DTSC

Activities Today:

1. IES pulling ONCA ISVE system DPE pumps
2. Eagle Cleaning and jetting ONCA ISVE wells.

0815 Went to ONCA to observe work. IES and Eagle wearing respirators - IES wearing half face respirator, Eagle wearing full face and vacuuming SVE66.

0820 Roll 56 Photo 1 facing S of IES pulling pump from SVE-65 Note oily product coating pump.

0822 Roll 56 Photo 2 facing SE of Eagle vacuuming out SVE-66.

0830 Roll 56 Photo 3 facing SE of Eagle inserting jetting unit in SVE-66.

0845 Spoke with T. Timics - He reported MWH performed air monitoring yesterday - observed peaks around 2 ppm on PID but average at 0 ppm. MWH still requiring

3/30/04

respirators - MWH reported that it can go through periodically with PID and perform air monitoring.

0915 Talked with L. Grose - he reported that he does not plan to do air monitoring in ONCA - MWH wanted all well caps - requiring respirators and based on yesterday's readings and historical results he does not believe additional monitoring necessary since the requiring respirators. I did ask him when they bring pumps into GWTP - he reported that they may need respirators and will need to vent GWTP at a minimum. Eagle is bringing all liquids back to GWTP for treatment. Eagle using only water to jet wells. OFCA ISVE operating well and GWTP operating. He also reported that MWH received quote from Vidstrom regarding heat exchanger and it was double that of Global.

0925 Went to ONCA - Observed Eagle and IES

0945 Eagle and IES take break.

1000 Eagle and IES resume activities IES removing pumps from DPE wells in roadway outside of fenced well field. Earlier, MWH

3/30/04

reported that it has spoken with Tom Fromm of ACS regarding activities. IES to replace steel cap over DPE wells in roadway.

1010 Roll 156 Photo 4 facing NW of IES removing pump from SVE-49

1012 Roll 156 Photo 5 facing N at ground of pump removed from SVE-49 - Note solids on air line and stem on pump.

1030 Spoke w/ L. Grose regarding discrepancy between MWH HTS procedures to collect water levels vs. contractor policies. Health needs to be addressed suggested it be raised at weekly mtg.

1045 Spoke w/ T. Thiros - he reported Eagle with ~~PID~~ CGI performing periodic air monitoring activities - not MWH directly. Eagle continue to jet and vacuum all week. IES to clean and replace pumps Friday.

1100 Left Site for day

3/30/04

(84)

4/1/04

0740 Arrive Onsite, Partly cloudy, 35°F, NW wind

Personnel Present:

* Lee Orosz	MWH
* Tom Tinics	MWH
Jose Guerra	Eagle
TJ Kladuse	Eagle
* Todd Lewis	MWH
Jeff Watson	J+L
* Leigh Petrus	BUSPC

0745 Went to ONCA - Eagle vacuuming and jetting ONCA SBPA ISVE wells. Spoke with J. Guerra of Eagle - he reported that he is performing air monitoring with PID CGI every 30 minutes - he reported all readings in breathing zones at 0ppm thus far to H2S, CH4, CO

He also reported performing oxygen monitoring - all readings around 21% o2.

0755 Roll 56 Photo 6 facing W of Eagle vacuuming SVE-59; Note FP CGI on ground.

0800 Roll 56 Photo 7 facing West at ground of material in SVE-61. CGI Combustible Gas Indicator

0820 Roll 56 Photo 8 facing W of Eagle performing air monitoring at SVE-52 with CGI PID - results at well opening at 20 % O2 Breathing zone 0ppm for combustibles gas

(85)

4/1/04

0844 Roll 56 Photo 9 facing W at ground of jet nozzle used to clear out well screens.

0850 Reported to T. Tinics that I did not know Eagle had only CGI onsite - concerned with volatiles. T. Tinics reported Eagle not monitoring PID. I expressed concern that PID only used on 3/29/04

0900 T. Tinics preparing PID to take onsite. - Calibrate PID

0910 T. Tinics onsite measuring breathing zone with PID - zone at SVE-61 0ppm at breathing zone, PID peak at 80ppm at well casing.

0920 Roll 56 Photo 10 facing S of T. Tinics monitoring breathing zone with PID reading 0ppm

0930 MWH evaluating vacuum at wells by qualitatively seeing if vacuum observed in blower shed. MWH opens gate valve to well and valve to knockout tank. MWH holds flag over knockout tank valve to observe if vacuum present on well.

1000 Weekly Construction Coordination Mtg

Attendees - * on previous plus: via phone:

Kevin Adler	EPA	Jon Poll	MWH
Rudy Stein	MWH	Chad Smith	MWH
Amy Clore	MWH	Aaron	Environ
Peter Cyt	MWH		

4/1/04

H+S: No incidents. Eagle Services on site MWH gave tailgate mtgs addressing H+S requirements, air monitoring + H+S MWH opened wells on Monday and vented MWH performed air monitoring Monday with PID initially - Breathing zone = 0 ppm. Eagle performing CGI monitoring MWH did not use PID yesterday b/c of humidity. MWH used PID/FID today - readings in breathing zone 0 ppm. MWH revising approach to air monitoring b/c activities currently not following water level gauging protocol based on nature of activities.

GWTP: @ 20 gpm - lowered b/c DPE pumps not online.

Thermox 2: op w/ vapors from OFCA, T702

Thermox 1: Existing heat exchanger highly customized - MWH looking into independent heat exchanger.

ONCA: IES pulled DPE pumps, MWH evaluating each pump and will make sure that they work prior to reinserting - Expect up running next week. Eagle clearing wells - MWH processing water in GWTP

4/1/04

and will dry clay sludge and dispose of in the haz waste tabloff.

Chemox: Results emailed today from baseline. MWH evaluating. Expect ISOTEC results next week. Expect to inject reagent last week of April

Look Ahead: Start ONCA ISVE system - notify/coordinate w/ AFCS. Wetland paths by Anstgen, Chemox study.

1635 Mtg conclude - Next Mtg 4/22/04 @ 1000.

1050-1110 Spoke w/ L. Campbell on site activities.

1115 Spoke w/ L. Orosz + T. Lewis and stressed that we would like H+S issues addressed prior to field activities - MWH to look into utility protocol that defaults to H+S plan for ~~water~~ well activities. MWH to look into what was performed in OFCA.

1130 Left Site for day

4/1/04

(88)

4/16/04

0744 Arrive onsite; cloudy 60°F, Forecast sunny - 80°

Personnel Present

Lee Orosz	MWH
Dave Arstgen	Arstgen
Tom Tinics	MWH
Leigh Peters	BVSPC

Arstgen to move logs today

0750 Spoke w/ Tom Tinics - ONCA 1SVE operating - he and C. Daly tested flow from wells. Kept wells open for 3 days - could not pull flow from some wells - possibly S. MWH now in testing of a group of wells as follows:

SVE-43	SVE-58	SVE-68 SVE-85
SVE-45	SVE-60	SVE-69
SVE-46	SVE-61	SVE-71 (19)
SVE-47	SVE-63	SVE-74
SVE-48	SVE-64	SVE-83
SVE-50	SVE-67	SVE-84

SVE-61 & SVE-65 DPE pumps were trashed and not reinstalled - MWH to replace. L. Orosz and T. Rinkland of Arstgen installed DPE pumps yesterday and pumping from the 19 DPE wells

(89)

4/16/04

MWH & T. Kirkland wore respirators and opened wells to vent for 4 hours yesterday. MWH kept system on line but shut down wells in which pumps were needed and installed i.e. MWH installed 6 DPE pumps - and pumping 28 gpm from ONCA SB PA today. L. Orosz reported Arstgen moving logs with excavator and dump trucks. Arstgen to complete moving logs today to area west of GWTP.

0830 Roll 56 Photo 11 facing S of Arstgen dumping logs from OFCA near GWTP.
Went to OFCA to observe Arstgen's activities.

0835 Roll 56 Photo 12 facing SW of log pile on northern portion of OFCA. Note tire and drain tile.

0845 Roll 56 Photo 13 facing NE of Arstgen removing logs & placing in dump trucks.

0855 Walked OFCA cover. Did not observe ~~seeps~~ or erosion areas. Drain tile in swales is exposed - installed last year

0905 Roll 56 Photo 14 facing east of drain tile installed in swales to aid in removing water from low spot at EW20C.

(90)

4/16/04 Zach S Peters

0910 Roll 56 Photo 15 facing E of Austgen cutting larger logs with chainsaw prior to relocating

0915 Spoke w/ L. Orosz - he reported MWH performed air monitoring with PID when removing caps from wells yesterday. MWH vented 4 hours and wore respirator when connecting pump. MWH reported that it did not see high hits at well opening since vapors being pulled. MWH also reported that it has not developed its health and safety protocol for work in ONCA-SBA ISVE well field

0940 Roll 56 Photo 16 facing W of former North log pile - Note minimal impact from excavator. No nuts observed.

0955 Roll 56 Photo 17 facing N of Austgen cutting + removing logs from eastern log pile.

1020 Roll 56 Photo 18 facing SE of log pile W of GWTP to be chipped tuesday

1030 left site for day

Zach S Peters
4/16/04

(91)

4/22/04

1345 Arrive on site - Overcast
Cold 50°F

Personnel on site

Lee Crosz	MWH
Tom Tinics	"
Chris Daly	"
Jim Campbell	BUSPC
Kevin Adler	EPA
Prashikar Kasaribar	IDEM

1405 Construction Mtg

Attendees

T. Tinics	MWH	Site
C. Daly	"	"
P. Vagt	"	Office - Plano
R. Adams	"	" "
T. Lewis	"	" "
K. Adler	EPA	Site
L Campbell	BUSPC	"

Hts

No issues since last mtg
Only IEC & Austgen have been on site
Each had daily Hts briefings
Air Monitoring was performed at

Jim Campbell

(92)

4/22/04

dual phase extraction (DPE) wells prior to removing / reinstalling pumps. There were no elevated readings, but personnel wore respirators

GWTP operating @ 30 gpm drawing water from PGWs, BWEs and DPE wells

DPE wells - pumps removed / cleaned / reinstalled. Two pumps (#61, 65) need repairs. All DPE wells working OK except for two

GWTP down 4/10/04 because GAC was plugged. After back wash, returned online on 4/11/04

Thermal Z

Running well pulling vapors from OFCA & ONCA SBPA ISVE systems.

Thermal

Still waiting on another quote to repair unit

OFCA ISVE

Working well testing. Same configuration / well as previously.

JM Campbell

(93)

Matt is preparing SOW for second blower for OFCA ISVE system to procure equipment. Probably complete w/i 1 week

ONCA SBPA ISVE

wells online - proving out system Measured water levels. Some water in SVE (but not in DPE) wells Water level in most wells is at or below the target W.L. There are 17 wells w/ NO vapor flow, 4 have high water levels, but some are dry & still not flowing vapors. Plan to use a higher vacuum to see if that works (we'll need a special vac. truck)

Access Paths to wetland wells

Austgen relocated tree stumps from OFCA to SW of GWTP. Austgen will use tub grinder next week to grind up trees, limbs as mulch for paths. Matt need property owner (CSX RR) signature on wetlands application - but CSX is V. Slow to respond.

JM Campbell

(94)

4-22-04

Total area of paths will be ≈ 4400 sq. ft

CHEM OXIDATION Treatment

Scheduled to begin next Monday 4/26/04. ISOTECH will mob to site Monday for kickoff mtg @ 8 AM. ISOTECH is applicator & will use same driller. ~~[illegible]~~ ~~is [illegible]~~, Use PID to do monitoring. Expect to start ≈ Noon, be complete by end of week.

Look Ahead

Chemical Ox application

Austgen grind up logs

MWH will Check out 4 DPE wells that are not producing (might have to pull couple of well casings to check for problems)

1540 Next Mtg May 6 @ 10 AM

~~1440~~ Mtg over

1550 Photo 56-19 looking SE at relocated log

1551 Photo 56-20 " NW " " "

1600 Left site

Jim Campbell

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(95)

4/26/04 [signature]

0800 Arrive onsite, 50°F, sunny, W wind

Personnel onsite:

Lee Orosz	MWH
Amy Clore	MWH
Matt Mesarch	MWH
Tom Tinics	MWH
Chad Smith	MWH
Leigh Peters	BVSPC

Spoke w/ Orosz + Tom Tinics - GWTP operating + both ISVE systems operating through Thermox 2. MWH still having problems pulling flow through some wells in ONCASBPAISVE in areas where product was present. MWH evaluating options.

0820 PSA Environmental onsite - Drillers for Chem ox applications - Aaron Score and Kenny Deane

0835 ISOTEC onsite, MWH conducting H+S meeting for Chem ox. MWH discussed site operations - GWTP, SVE, ACS facility. Safety along Colfax - high visibility vests. C. Smith discuss activities - 40 injection points. Smear zone ~ top at 16-18 ft bgs ~ 6 foot interval. High water table - should be at or above smear zone. COCs - BTEX, TPH, trace chlorinateds

[signature]

4/26/04 [signature]

MWH air monitoring with PID; ISOTEC to handle injection, starting on west side of cdfax. PPE - start in level D gloves, PSA wearing face shields when removing rods. ISOTEC to wear face shields and gloves during mixing. 50% Hydrogen Peroxide in 55-gal drums Catalyst - Iron is dry. MWH responsible for air monitoring with PID on 15-min intervals. ISOTEC will establish an exclusion zone around mixing area with caution tape. Tyvek will be used if soil or reagent may get on clothing.

0915 Mtg concluded. ISOTEC personnel as follows:
Kevin O'Neal
Roger Reierson
Gary Schreiber

0925 MWH reported that PSA will drill additional hole several feet away from injection point and ISOTEC will measure iron and peroxide concentrations in gw during application to determine radius of influence. MWH reported that this may be done every day.

[signature]

4/26/04 [signature]

0940 Went to OFCA and observed ISOTEC set up equipment and unload peroxide.

0945 Roll 56 Photo 21 facing SE of ISOTEC unloading peroxide onto OFCA

0955 Roll 56 Photo 22 facing S of MWH measuring off injection points while ISOTEC sets up.

1000 L. Peters requested that ISOTEC mgr Tom Andrews wear high-vis vest. MWH provided vest to individual. ISOTEC to apply from 180 to 360 gallons per point.

1030 Roll 56 Photo 23 facing SE showing ISOTEC setting up exclusion zone around mixing area. L. Peters requested hydrogen peroxide be moved to furthest away from road.

1100 PSA drilling 1st location, W side of road, immediately N of electrical supply to OFCA blower shed.

1105 Roll 56 Photo 24 facing N of MWH performing air monitoring in breathing zone with PID during PSA drilling activities. Readings 0 ppm.

1120-1135 Left site to get camera

1145 Roll 56 Photo 25 facing W of injection point and piping to apply chemox - note surfacing reagent - peroxide mixing with soil

1195 Roll 56 Photo 26 of the surfacing peroxide.

4/26/04

1200 Roll 56 Photo 27 facing S of ISOTEC connecting fitting to DPT rod for Chemox reagent injection.
ISOTEC injecting at 5 gpm.

1245 Roll 57 Photo 1 facing SE showing ISOTEC mixing 12% hydrogen peroxide from 50% stock solution. Note face shield.

1325 mwh measured water level at a DPT location - reported water level increased by 0.5 foot after Chemox reagents injected in nearby DPT location

1335 Roll 57 Photo 2 facing N showing C. Smith collecting a gw sample from a DPT location 6 ft south of an injection point in order for ISOTEC to test w/ Hach kit

1345 Roll 57 Photo 3 facing S showing vial of reagent + peroxide mixture

1355 PSA removing DPT rods and screen from W-5

1400 Roll 57 Photo 4 facing NW showing PSA removing DPT rod and screen from W-5

1402-1410 Update Larry Campbell on site activities

1445 PSA drilling W-13, located 5 ft gw sampling point

1450 Roll 57 Photo 5 facing NE showing

4/26/04

PSA advancing DPT well screen at W-13 and placing bentonite chips to prevent surfacing of reagent

1500 Roll 57 Photo 6 facing NE of mwh taking water level measurement at DPT location between W-11 and W-13. C. Smith reported water level returned to static level after injection at W-11 concluded.

1510 Spoke with C. Smith regarding lower aquifer - he reported mwh currently drafting work plan for investigation. C. Smith also reported follow-up sampling in S area to be conducted appx 4 weeks from now

1530 ISOTEC set up on final injection location. ISOTEC will complete 7 total locations.

1535 left site for day.

4/26/04

4-29-04

0815 Arrive at site. Sunny 65°F
light winds, light clouds

Personnel Onsite

Lee Orosz	MWH	Amy Clore
Matt Mesarch	MWH	Tom Jarvis
Chad Smith	MWH	
Roger Reierson	Isotec	Kevin O'Neal
Gary Schreiber	Isotec	
Aaron Sense	PSA Envl	Kenny Doane
Lee Krooswyk	Krooswyk Inc	Gerald Krooswyk
Roger Foster	Cochranes	
Kevin Farley	Semilab	
Larry Campbell	BVSPC	

0830 Met w/ C. Smith (Tom) & M
Progress going well - got 14 points
Completed yesterday - 6 points
to go today on E side of road

0845 Photo 57-7 Looking S at
row of 5 injection point rods

0900 Began injecting peroxide Soln into
points E17 & E19

0955 Photo 57-8 Looking N at Isotec
set up for mixing injection agents

JM Campbell

1040 Photo 57-9 Looking SW at
MWH inspector measuring GW level
in ~~point~~ Sample probe 5.55 ft point E13

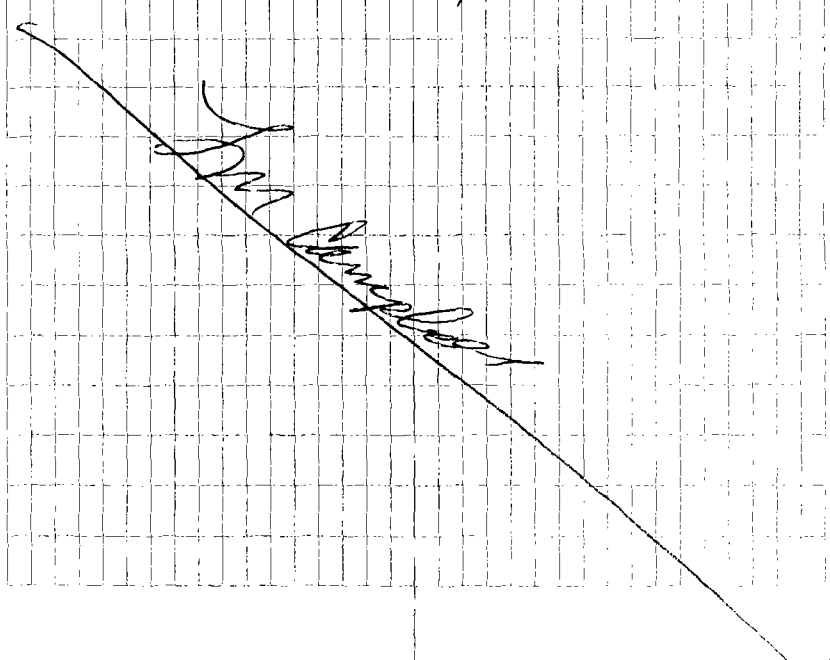
1103 Photo 57-10 Looking NW at
tub grinder grinding logs

1105 Photo 57-11 Looking NW at
loading of new log into grinder

1110 Photo 57-12 Looking NE at
backhoe lifting new log for grinder

1117 Photo 57-13 Looking N at
Isotec loading trailer after completion
of injections.

1150 Left Site for day



Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #1
Date: 03-30-04 Time: 08:20
Photographer: Leigh Peters
Description: Photo facing south showing IES removing the pneumatic pump from ONCA SBPA ISVE system DPE well SVE-65. Note oily product coating the pump.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #2
Date: 03-30-04 Time: 08:22
Photographer: Leigh Peters
Description: Photo facing southeast showing Eagle Services vacuuming out liquid from ONCA SBPA ISVE system well SVE-56.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #3
Date: 03-30-04 Time: 08:30
Photographer: Leigh Peters
Description: Photo showing southeast showing Eagle Services inserting the jet into ONCA SBPA ISVE system well SVE-66.

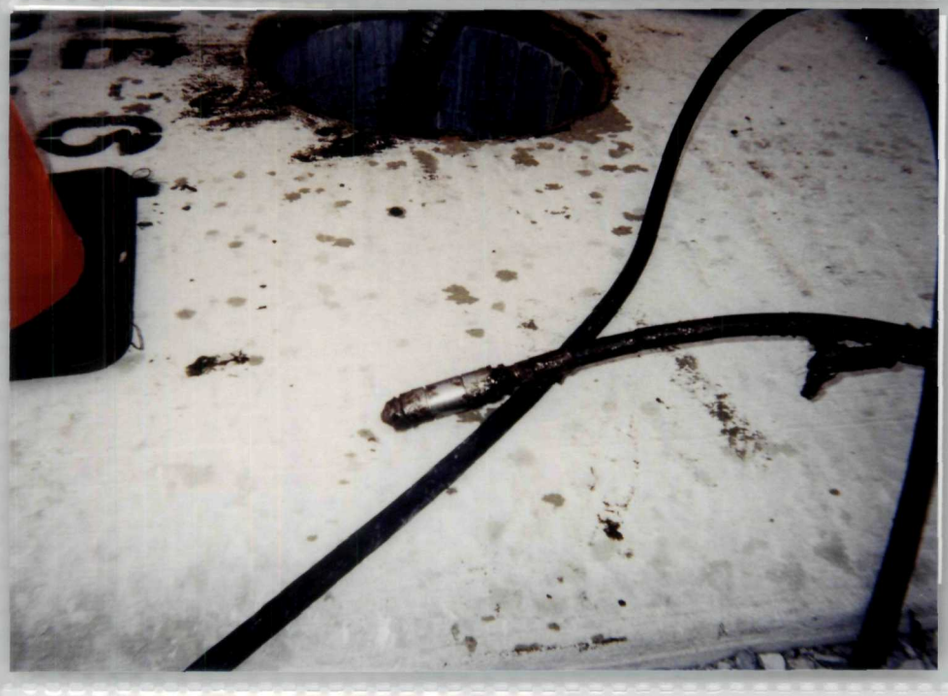
Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #4
Date: 03-30-04 Time: 10:10
Photographer: Leigh Peters
Description: Photo facing northwest showing IES removing the pneumatic pump from ONCA SBPA ISVE system DPE well SVE-49.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #5
Date: 03-30-04 Time: 10:12
Photographer: Leigh Peters
Description: Photo facing north at ground showing the pump removed from ONCA SBPA ISVE system DPE well SVE-49. Note solid material on air supply line and sheen.

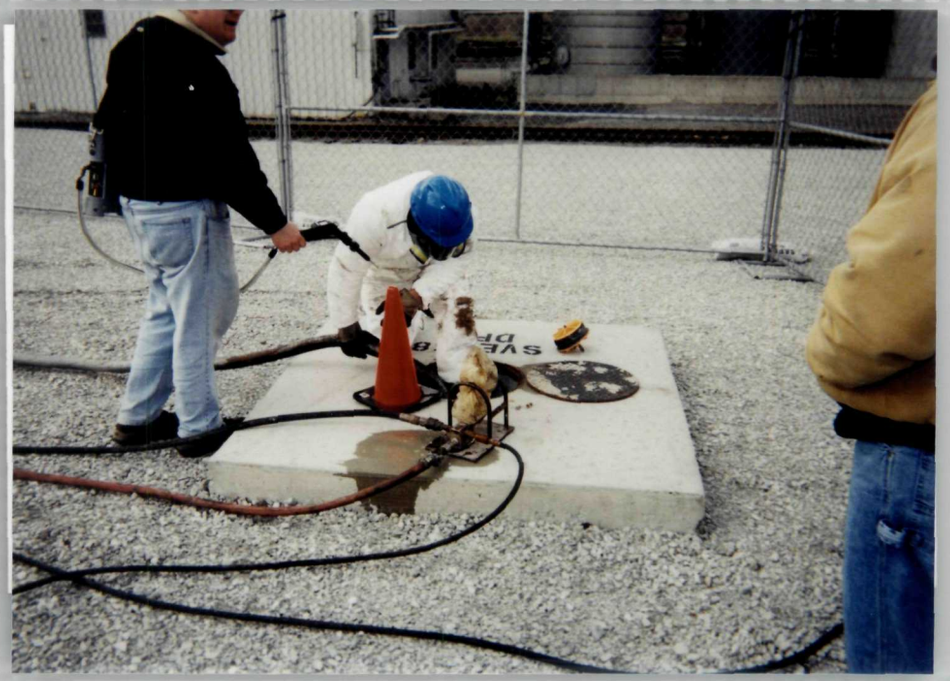
Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #6
Date: 04-01-04 Time: 07:55
Photographer: Leigh Peters
Description: Photo facing west showing Eagle Services vacuuming liquid from ONCA SBPA ISVE system well SVE-59.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #7
Date: 04-01-04 Time: 08:00
Photographer: Leigh Peters
Description: Photo facing west at ground showing the liquid present in ONCA SBPA ISVE system DPE well SVE-61.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #8
Date: 04-01-04 Time: 08:20
Photographer: Leigh Peters
Description: Photo facing west showing Eagle Services performing air monitoring at the well casing using a combustible gas indicator.



Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #9
Date: 04-01-04 Time: 08:44
Photographer: Leigh Peters
Description: Photo facing west at the ground showing the jet nozzle used by Eagle Services to clear the well screens.



Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #10
Date: 04-01-04 Time: 09:20
Photographer: Leigh Peters
Description: Photo facing south showing Tom Tinics monitoring the breathing zone using a PID.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #11
Date: 04-16-04 Time: 08:30
Photographer: Leigh Peters
Description: Photo facing south showing Austgen unloading logs from the OFCA cover near the GWTP.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #12
Date: 04-16-04 Time: 08:35
Photographer: Leigh Peters
Description: Photo facing southwest showing the pile of logs on the northern portion of the OFCA. Note miscellaneous debris present in pile.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #13
Date: 04-16-04 Time: 08:45
Photographer: Leigh Peters
Description: Photo facing northeast showing Austgen removing logs from the piles on the OFCA and placing in the truck for relocation.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #14
Date: 04-16-04 Time: 09:05
Photographer: Leigh Peters
Description: Photo facing east showing the drain tile installed in the swales near EW-20C to aid in reducing ponding of water.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #15
Date: 04-16-04 Time: 09:10
Photographer: Leigh Peters
Description: Photo facing east showing Austgen cutting the larger logs with a chainsaw prior to relocating them to near the GWTP.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #16
Date: 04-16-04 Time: 09:40
Photographer: Leigh Peters
Description: Photo facing west showing the former log pile on the northern portion of the OFCA. Note, no ruts observed in the cover.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #17
Date: 04-16-04 Time: 09:55
Photographer: Leigh Peters
Description: Photo facing north showing Austgen cutting and removing logs from the eastern log pile on the OFCA.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #18
Date: 04-16-04 Time: 10:20
Photographer: Leigh Peters
Description: Photo facing southeast showing the log pile located west of the GWTP.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #19
Date: 04-22-04 Time: 15:50
Photographer: Larry Campbell
Description: Photo facing southeast showing the relocated logs from the OFCA staged southwest of the GWTP.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #20
Date: 04-22-04 Time: 15:51
Photographer: Larry Campbell
Description: Photo facing northwest showing the relocated logs from the OFCA staged southwest of the GWTP.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #21
Date: 04-26-04 Time: 09:45
Photographer: Leigh Peters
Description: Photo facing southeast showing ISOTEC unloading hydrogen peroxide onto the OFCA.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #22
Date: 04-26-04 Time: 09:55
Photographer: Leigh Peters
Description: Photo facing south showing MWH measuring the location of injection points west of Colfax Road, outside of the perimeter barrier wall.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #23
Date: 04-26-04 Time: 10:30
Photographer: Leigh Peters
Description: Photo facing southeast showing ISOTEC setting up an exclusion zone around the chemical staging area prior to injection into the subsurface.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #24
Date: 04-26-04 Time: 11:05
Photographer: Leigh Peters
Description: Photo facing north showing MWH performing air monitoring with a PID during drilling activities.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #25
Date: 04-26-04 Time: 11:45
Photographer: Leigh Peters
Description: Photo facing west showing a chem-ox injection point and piping used to apply catalyst and hydrogen peroxide. Note white reagent surfacing at injection point.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #26
Date: 04-26-04 Time: 11:45
Photographer: Leigh Peters
Description: Photo facing west at the ground showing the surfacing of the white chem-ox reagent at the injection point.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 56 Photo #27
Date: 04-26-04 Time: 12:00
Photographer: Leigh Peters
Description: Photo facing south showing ISOTEC connecting the fitting to the DPT rod for chem-ox reagent injection.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #1
Date: 04-26-04 Time: 12:45
Photographer: Leigh Peters
Description: Photo facing southeast showing ISOTEC mixing 12% hydrogen peroxide solution from a 50% hydrogen peroxide stock solution. Note worker wearing face shield.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #2
Date: 04-26-04 Time: 13:35
Photographer: Leigh Peters
Description: Photo facing north showing Chad Smith of MWH collecting a groundwater sample from a DPT location 6 feet south of a chem-ox injection point.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #3
Date: 04-26-04 Time: 13:45
Photographer: Leigh Peters
Description: Photo facing south showing a jar in which the catalyst and hydrogen peroxide have been mixed, forming the chem-ox reagent.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #4
Date: 04-26-04 Time: 14:00
Photographer: Leigh Peters
Description: Photo facing northwest showing PSA removing the DPT rod and well screen from injection point W-5.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #5
Date: 04-26-04 Time: 14:50
Photographer: Leigh Peters
Description: Photo facing northeast showing PSA advancing the DPT well screen at W-13 and placing bentonite chips during probing to minimize surfacing of reagent.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #6
Date: 04-26-04 Time: 15:00
Photographer: Leigh Peters
Description: Photo facing northeast showing MWH measuring the water level at a DPT location between injection points W-11 and W-13.

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Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #7
Date: 04-29-04 Time: 08:45
Photographer: Larry Campbell
Description: Photo facing south showing a row of 4 injection and 1 sampling points on the east side of Colfax Road.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #8
Date: 04-29-04 Time: 09:55
Photographer: Larry Campbell
Description: Photo facing north showing ISOTEC setting up for mixing chem-ox reagents.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #9
Date: 04-29-04 Time: 10:40
Photographer: Larry Campbell
Description: Photo facing southwest showing MWH measuring the water level at a DPT location 5.5 feet south of injection point E-13.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #10
Date: 04-29-04 Time: 11:03
Photographer: Larry Campbell
Description: Photo facing northwest showing the tub grinder grinding the logs from the OFCA. (Logs were relocated from staging area SW of GWTP to area NW of site trailer.)

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #11
Date: 04-29-04 Time: 11:05
Photographer: Larry Campbell
Description: Photo facing northwest showing Austgen loading a log into the tub grinder for chipping.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #12
Date: 04-29-04 Time: 11:10
Photographer: Larry Campbell
Description: Photo facing northeast showing Austgen using a backhoe to lift a log for grinding in the tub grinder.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 57 Photo #13
Date: 04-29-04 Time: 11:47
Photographer: Leigh Peters
Description: Photo facing north showing ISOTEC loading its trailer after completing the chem-ox application.